



Photo courtesy of L3 Narda-MITEQ



Meeting customers' leading-edge performance requirements

L3 Narda-MITEQ was formed in 2015 through the combination of MITEQ, Inc. and L3 Narda-East. Today, the company designs and manufactures a complete line of high-performance components and subsystems for the microwave electronics community. The company develops both standard and custom products, such as passive and active components, subsystems, switches, modules, SATCOM solutions, spaceflight components and RF safety monitoring equipment, for the commercial and military markets. Amy Saunders spoke with Tony Rao, VP of Sales and Marketing at L3 Narda-MITEQ, to find out more about the company's capabilities, market presence and expectations for the future.

Question: What can you tell us about the founding and development of L3 Narda-MITEQ over the years, including key milestones achieved along the way?

Tony Rao: Narda was founded more than 60 years ago in Mineola, New York, with a primary focus on designing and manufacturing RF passive components. As the company expanded, it was purchased by Loral Corporation and ultimately became one of the first companies to be part of L3 Technologies when it was formed in 1997. MITEQ, Inc. was established in Hauppauge, New York, over 48 years ago as a provider of RF active components as well as SATCOM Earth station components and equipment. In 2015, L3 Technologies purchased MITEQ and merged it with Narda, thereby forming L3 Narda-MITEQ.

As one company, L3 Narda-MITEQ supplies the commercial and military

microwave/RF component and SATCOM markets with a diverse offering of passive and active components, assemblies and IMAs to customers around the world.

Question: Can you provide an overview of L3 Narda-MITEQ's competencies and capabilities?

Tony Rao: L3 Narda-MITEQ offers a wide range of passive and active components, SATCOM products, non-ionizing radiation safety equipment and IMAs. One of our unique discriminators is our ability to satisfy our customers'

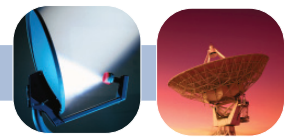
stringent requirements using catalogue and custom-built components.

L3 Narda-MITEQ is highly adept at developing very complex devices based on our customers' specific applications. Our knowledgeable engineering staff has extensive expertise in numerous areas of design and manufacturing utilizing the very latest design tools to ensure we deliver products that meet our customers' leading-edge performance requirements.

Question: There are more than a handful of companies producing



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SATCOM components like amplifiers and modulators. How does L3 Narda-MITEQ differentiate itself from its competitors?

Tony Rao: L3 Narda-MITEQ can support fully customized solutions from the ground up, as well as utilize our portfolio of catalogue units as a basis to satisfy our customers' needs. We have been in the Ka-band market for more than 10 years and have been supplying Q-band units for over five years. Our sizeable internal R&D budget allows us to position ourselves to develop new products for emerging bands, such as V-band, positioning us to meet our customers' needs as higher-frequency SATCOM equipment is required.

Question: Which geographical and vertical markets are key to L3 Narda-MITEQ's business, and how have they developed throughout the company's history?

Tony Rao: Geographically, L3 Narda-MITEQ has a worldwide presence, with sales partners and channels serving virtually every country. We are experiencing growth in all parts of the world driven by the demands of differing end markets. The need for faster, broader bandwidth, higher-frequency, high-performance RF and microwave devices drives our growth in markets such as defense, wireless communications, commercial in-flight connectivity, IoT, and test and measurement.

Question: What can you tell us about L3 Narda-MITEQ's experience in the government and military sphere? How are this area's needs different from commercial customers?

Tony Rao: Our government and military customers require high-performance equipment that must meet the most stringent environmental conditions based on their applications. Our long history as a supplier to defense markets around the world has resulted in our development of proprietary designs and processes that enable us to meet their rigorous environmental and performance requirements. Many of our commercial customers are demanding similar requirements that, in the past, were only required by the defense industry.

Our experience in defense allows us to satisfy the emerging needs of new commercial applications. In fact, a number of our commercial end markets take advantage of our vast offering of

standard catalogue components and assemblies. In many instances, we can deliver products from our large stock of offerings for next-day delivery.

Question: The satellite industry is witnessing a great moment of change right now; which innovations do you think are having the biggest impact and how will they affect L3 Narda-MITEQ in the future?

Tony Rao: The evolution of the frequency bands continues to drive the industry. Initially, we produced products for the C- and S-bands, followed by the Ku-band, which was required for greater capacity and speed. Next came the Ka-band, which dominates today's markets seeking faster and higher throughput for constantly expanding data requirements. As the Ka-band becomes saturated, the Q- and V-bands are being utilized to alleviate traffic congestion and allow for faster data rates.

Question: With the new wave of high-throughput satellites (HTS) and small satellites, how are customer demands changing and how is L3 Narda-MITEQ responding?

Tony Rao: As mentioned before, L3 Narda-MITEQ is developing Q- and V-band capabilities for the next-generation Earth stations. These bands have become very important as Ka and the other bands become saturated. HTS are driving a new architecture for satellites, and the strict requirements for spaceflight components and assemblies are being evaluated to determine how cost can be reduced. Many applications are now utilizing less stringent requirements than traditional spaceflight applications required in the past.

Shorter satellite design lives and the vast number of satellites being developed for many HTS applications are driving a new paradigm in the way these satellites are designed and the

flow down of requirements to the subsystem suppliers. L3 Narda-MITEQ is responding to these changes by working closely with our satellite customers, educating them on what we have learned through more than 60 years of designing products for our defense customers.

We are finding that in many cases our defense and best commercial designs can satisfy the requirements of our spaceflight customers in the HTS industry.

Question: Which achievements are you most proud of at L3 Narda-MITEQ in the last 12 months and how will the company build on those for 2018 and beyond?

Tony Rao: It is never easy to merge two successful companies into one cohesive entity. We began working on the integration of MITEQ and Narda in 2015 and have achieved many of our goals and aspirations of becoming the premier one-stop company for our customers' RF and microwave product needs.

Over the last 12 months, we have seen many of our goals come to fruition as witnessed by the many accolades we have received from our customers acknowledging positive results. However, we are never satisfied, and we remain committed to leading the RF and microwave market as we define the standard for the industry. We will continue to expand our offering of components, such as mixers and amplifiers, for stock delivery, work with emerging technologies in SATCOM and spaceflight, and strive to create designs that shorten the cycle time for custom devices.

Our customer-focused culture will allow us to build on our position as the worldwide standard for the design and manufacture of RF/microwave components and assemblies for decades to come. ■



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